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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,093	10/12/2000	Stephen A. Constantino	00131	8335

7590

03/22/2002

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EXAMINER

DERRINGTON, JAMES H

ART UNIT	PAPER NUMBER
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1731

6

DATE MAILED: 03/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/689,093

Applicant(s)

CONSTANTINO ET AL.

Examiner

Derrington James

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

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Claims 14-15, 25 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recitation "the A/B" ratio does not have antecedent basis and is not defined in the claims.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-5, 8-21, 23-30 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Witham et al (6,169,049).

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This reference discloses the process of heat treating barium titanate particulates at 800 °C whereby the particles are increased in size (See Table 2 and Col. 6, lines 18-24). The starting particle size falls within the limitations of claim 4 while the heated particle has a size of about .2 microns, i.e. .1849 , microns (note Cabot BT-6 in Table 3). The particles are prepared by a hydrothermal process and coated with Bismuth (See Abstract). The reference clearly envisions forming a dielectric layer (Col. 1, line 13 ff) and sintering temperatures falling within the claimed limitations are shown in Table 3.

Claims 1-12 , 19-23 and 30 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ittis et al (4,929,574).

This reference discloses the process of heat treating barium titanate particulates at 1100 °C whereby the particles are increased in size (See Col 3, lines 18-50). The starting particle size is submicron (Col. 6, lines 20-21) while the heated treated particle can have a size of about 1 micron (Col. 2, line 19) The particles can be prepared by known processes. (Col. 3, lines 52-62). The reference clearly envisions forming a dielectric layer (Col. 1, line 13 ff) and sintering temperatures falling within the claimed limitations are shown in Table 3.

Applicant has indicated that the instant heat treating step is not a calcination step (paragraph bridging pages 6-7) while the heat treating step of the reference can be characterized as "calcining" (note Table 1). Applicant would need to recite a difference in manipulative step(s) in order to impart patentability to the claims because currently both the claims and the reference heat treat barium titanate particulates at 1100 °C.

Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruno et al (5,155,072) taken with S. A. Bruno et al (Journal of American Chemical Society) .

Bruno et al (5,155,072) disclose the process of heat treating doped barium titanate particulates at 900 °C whereby the particles appear to increase in size (See Col 3, lines 18-50). As further evidence of increase in size, S. A. Bruno et al disclose a related process of heat treating doped barium titanate particulates at 1000 °C whereby the powder is decreased in surface area, i.e. the particle size is increased (See page 1235, Col. 2, second full paragraph). Both references disclose subsequent production of sintered dielectric layers.

Applicant has indicated that the instant heat treating step is not a calcination step (paragraph bridging pages 6-7) while the heat treating steps of the Bruno references characterize heating at 900 °C and 1000 °C as a calcination step. Applicant would need to recite a difference in manipulative step(s) in order to impart patentability to the claims because currently both the claims and the reference heat treat barium titanate particulates at temperatures at 900 °C and 1000 °C.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Derrington whose telephone number is 703 308-3832. The examiner can normally be reached on 8:30am - 5pm.

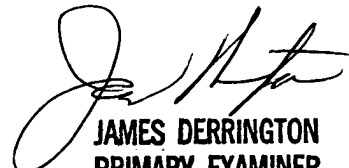
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 703 308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are 703

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305-7718 for regular communications and 703 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0661.

jd  
March 19, 2002

  
JAMES DERRINGTON  
PRIMARY EXAMINER  
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